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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/765,378 | 01/22/2001 | Yukio Kuroiwa | Q62756 | 1049 |

7590 01/30/2002
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EXAMINER

KIM, AHSHIK

ART UNIT PAPER NUMBER

2876

DATE MAILED: 01/30/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/765,378

Applicant(s)

KUROIWA ET AL.

Examiner

Ahshik Kim

Art Unit

2876

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/12/01 (Amendment).
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Amendment

1. Receipt is acknowledged of the amendment filed 12 December 2001.

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Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- 10 (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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2. Claims 1 – 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyashita (US 5,397,883) in view of Ohno et al. (US 5,424,523) and Nakamima (US 5,408,531).

25

Miyashita teaches a ticket/card reading apparatus 10 including two magnetic reading heads 24, 26 and a demodulator 134 to demodulate data from the readers (col. 4, lines 14 – 20; col. 5, lines 48 – 51).

Miyashita fails to specifically teach or fairly suggest of reading the ticket from multiple reading heads from the same side.

Ohno teaches a magnetic card reader (see figure 2) with multiple read heads which read the same side – 11, 17a, 17b and 19 read one side; 12, 18a, 18b and 20 read the other side (col. 6, lines 22+; col. 7, lines 10+). The read heads read part or whole of the character pattern in respective layer.

In view of Ohno's teaching, it would have been obvious to an ordinary skill in the art at the time the invention was made to employ well-known multiple read heads to read the data from respective tracks/layers to the teachings of Miyashita in order to increase the amount of data on the medium. Furthermore, various tracks/layers can be utilized to compartmentalize data accordingly depending on sensitivity or importance of the data. Moreover, one layer can provide a key information to access the data on a different layer or used as a back up space containing redundant data, which provides additional redundancy and security. When two layers carry same data, cross-check of data can be performed for error correction purpose, ensuring the integrity of data, and thus an obvious expedient.

Miyashita/Ohno fails to specifically teach or fairly suggest of error checking utilizing parity bits.

Nakajima teaches a magnetic/optical card reader 21 (col. 1, lines 15 – 20) with error checking utilizing parity bits where each byte of the data is checked and corrected (col. 4, 59 – col. 5 line 38+).

In view of Nakajima's teaching, it would have been obvious to an ordinary skill in the art at the time the invention was made to employ notoriously well-known error checking

mechanism utilizing parity bits to the teachings of Miyashita in order to reduce errors read from the magnetic card reader. Accordingly, such modification would have been an obvious extension as taught by Miyashita, well within the ordinary skill in the art, and therefore an obvious expedient.

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Conclusion

I. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Toyoma (US 5,679,942) discloses magnetic card reader and related methods.


10 II. Any inquiry concerning this communication or earlier communications from the examiner should be directed to *Ahshik Kim* whose telephone number is (703)305-5203. The examiner can normally be reached between the hours of 6:00AM to 3:00PM Monday thru Friday.

15 If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee, can be reached on (703) 305-3503. The fax phone number for this Group is (703)308-7722, (703)308-7724, or (703)308-7382.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [ahshik.kim@uspto.gov].

20 *All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.*

25 Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

30 
Ahshik Kim
Patent Examiner
Art Unit 2876
January 23, 2002


KARL D. FRECH
PRIMARY EXAMINER